

**LINN BENTON COMMUNITY COLLEGE  
CURRICULUM REVIEW: APRIL 29, 2016**

**Course Name**

BA 275 "Business Quantitative Methods"

**Percentage of Materials that are Open Educational Resource**

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**Course Outcomes and Assessments Used**

BA 275 has six learning outcomes:

1. Understand the meaning and use of statistical terms used in today's business/economic environment.
2. Collect, organize, summarize, interpret, and present data in tables and charts.
3. Apply descriptive statistical measures to data.
4. Apply probability distributions to model various business and economic processes.
5. Apply statistical inference techniques (including statistical estimation and hypothesis testing) in various business and economic situations.
6. Apply simple linear regression analysis to model various business and economic relationships.

The BA 275 course is divided into credit units. The first credit unit provides a framework for quantitative methods, and includes three modules, with each module assessing competency through testing that requires the student to successfully demonstrate knowledge.

The first module introduces basic quantitative concepts such as basic statistical terms and use of data. The second module discusses concepts such as mean, mode, median, and variation. The third module introduces basic probability concepts. All modules assess the student's knowledge of concepts through quizzes that cover concepts learned. Modules have "self-check" points, which are additional quizzes that contain questions tied to class materials. A final assessment at the end of the three modules comprehensively evaluates the student's competency and understanding of all concepts through administration of a quiz.

The second credit unit contains three modules, which build upon foundational knowledge learned in the first credit unit to apply statistical methods such as co-variance, distribution, and sampling. The first module covers the elements of co-variance and probability distribution. The second module demonstrates how to compute probabilities. The third module covers sampling methods. All modules assess the student's knowledge of concepts through quizzes that cover concepts learned. Modules have "self-check" points, which are additional quizzes that contain questions tied to class materials. A final assessment at the end of the three modules comprehensively evaluates the student's competency and understanding of all concepts through administration of a quiz.

The third credit unit contains three modules that cover the concept of confidence intervals. The first module discusses constructing and interpreting confidence interval estimates for the mean and the proportion, determining the sample size necessary to develop a confidence interval estimate, and using confidence interval estimates in auditing. The second module focuses on hypothesis testing. The third module covers data testing through population samples. All modules assess the student's knowledge of concepts through applied activities and quizzes that promote the application of relevant concepts. Modules have "self-check" points, which are quizzes that contain questions tied to class materials. A final assessment at the end of the three modules comprehensively evaluates the student's competency and understanding of all concepts through administration of a quiz.

The fourth credit unit contains three modules that cover experimental units and treatment conditions. The first module covers the foundation of experimental design, including the concepts of causation, control, and variability. The second module covers additional experimental design concepts, specifically, chi-square tests and McNemar tests. The third module covers regression analysis. All modules assess the student's knowledge of concepts through applied activities and quizzes that promote the application of relevant concepts. Modules have "self-check" points, which are quizzes that contain questions tied to class materials. A final assessment at the end of the three modules comprehensively evaluates the student's competency and understanding of all concepts through administration of a quiz.

All modules have assessments that require the student to demonstrate proficiency of the concepts taught in the modules. Proficiency is demonstrated through application of knowledge utilizing quizzes that include concepts taught in lessons and through exercises. A final assessment at the end of the modules comprehensively evaluates the student's competency and understanding of all concepts through administration of a final quiz.

### **Teaching Methods**

BA 275 is taught online. Teaching methods include the use of readings, proprietary lectures from Pearson, and practice exercises that students can conduct on their own time.

### **Industry Standards and the Course**

The BA 275 course is not designed to embed particular industry standards; however, relevant mathematical and statistical concepts and terms are integrated into the curriculum.